AppleWorks Forum

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Support for AppleWorks and ///EZ Pieces Users

Ideas for Improved Output

Dear Cathleen,

Although **NAUG**'s AppleWorks Wall Chart lists the printer codes for most popular printers, it does not list the code for every size output available from each machine. Many printer manuals, including the ImageWriter manual, do not make it easy to find these codes. Here are the printer codes to get all the different size characters that can be produced by the ImageWriter I and ImageWriter II:

Characters per inch	Printer code
4	Control-N Escape n
5	Control-N Escape N
6	Control-N Escape E
7	Control-N Escape e
8	Control-N Escape q
9	Control-O Escape n
10	Control-O Escape N
12	Control-O Escape E
13	Control-O Escape e
15	Control-O Escape q
17	Control-O Escape Q

Here is another note you might want to pass on: If you use the Dr. Schultz Disk to install more than one custom printer on your AppleWorks disk, be careful not to store the custom printer codes in the Silentype area. When you print an ASCII file on a disk, AppleWorks uses the Silentype area, which normally contains no printer codes. If you put your custom printer information in the Silentype area, AppleWorks will insert printer control code information at the beginning of every ASCII file you save on disk.

Terrence Davis
Louisville, Kentucky

[Ed: See the April and May 1987 issues of the ***AppleWorks Forum*** *for information about how to add up to three custom printers to AppleWorks. This procedure uses a program developed by Dr. Garth Schultz, and is available on the "Dr. Schultz Disk" from the* ***NAUG*** *Public Domain Library for $4 plus $2 shipping/handling. The Dr. Schultz Disk only works with versions 1.2, 1.3 and 2.0 of AppleWorks; it does not work with AppleWorks 2.1.]*

How to Use Font Disks from the NAUG Public Domain Library

Dear Cathleen,

Now that I've ordered the fonts disks from the **NAUG** Public Domain Library, how do I use the disks? How can I preview the fonts?

Arnold Cardosa
Encinitas, California

[Ed: NAUG has eleven disks which contain fonts you can use with TimeOut SuperFonts and AppleWorks. However, there are no programs on these disks and no way to boot the disks. You must have a program like SuperFonts or MultiScribe GS to preview or use these fonts.

Follow these steps to use these fonts with a SuperFonts-enhanced copy of AppleWorks:

1. *Create a new word processor document.*
2. *Insert a SuperFonts statement at the beginning of the document. The statement must appear on the first line of text and in the following syntax:*

   `<1=/diskname/font.name>`

   Substitute the name of the font disk for "diskname", and the name and size of a font for "font.name". For example, <1=/FONT1/GENEVA.10> prints the document in 10-point Geneva, a style that appears on the first font disk.

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3. *With the document on the screen, issue an Apple-Escape and invoke SuperFonts. Follow the menu choices that let you either preview the font on the screen or print the document.*

NAUG member Richard Melpignano is an avid collector of SuperFonts-compatible fonts and has printed out examples of the more than 450 fonts on the eleven NAUG fonts disks. His collection of printouts includes almost 150 pages, each with a sample of a font. For a printed copy of any font, send Mr. Melpignano a self-addressed, stamped envelope, a list of the font samples you want to receive, and 50 cents for each font to: Richard Melpignano, Box 119, Bellingham, Massachusetts 02019. Alternatively, send Richard $14 to cover the cost of duplicating and shipping, and he will send you more than 140 pages of printouts with samples of all the fonts in the NAUG Public Domain Library.

Note that while these are Apple IIGS fonts, they work with SuperFonts-enhanced copies of AppleWorks on any Apple II-series computer.

For more information about SuperFonts, see the article entitled "TimeOut SuperFonts: Impressive Output for AppleWorks" in the July 1988 issue of the AppleWorks Forum and the article "Hints for Using SuperFonts" in the August 1988 issue.]

How do you use AppleWorks?

As members of a users group, we learn new things about AppleWorks from each other. Many **NAUG** members use AppleWorks in unusual applications. Others find creative ways to get AppleWorks to perform tasks more efficiently. If you would like to share your ideas with other **NAUG** members, send your articles and templates to: Cathleen Merritt, Editor; AppleWorks Forum; **NAUG**; Box 87453; Canton, MI 48187

The ***National AppleWorks Users Group*** **(NAUG)** is an association that supports AppleWorks users.The group provides technical support and information about AppleWorks and enhancements to that program. Our primary means of communicating with members is through the monthly newsletter entitled the ***AppleWorks Forum***.

Can't Make Copies of AppleWorks 2.1

Dear Cathleen,

I have AppleWorks 2.1 on a 3.5-inch disk and want to copy the program onto a 5.25-inch disk. I formatted a 5.25-inch disk and tried to use a file copy program to copy the files SEG.M0, SEG.M1, and SEG.PR onto that disk. *[Ed: Those files are on the AppleWorks Program Disk.]* However, I get a "disk full" error message when I try to copy the last of the three files. Why won't these files fit? Claris gets these files onto a 5.25-inch disk. Shouldn't I be able to squeeze AppleWorks 2.1 onto a 5.25-inch disk?

David Honigstock
Beaverton, OR

[Ed: The AppleWorks program files are too large to fit on a standard 5.25-inch disk, so Claris modified the 5.25-inch Program Disk catalog to gain extra space and squeeze SEG.M0, SEG.M1, and SEG.PR onto a single side of a 5.25-inch disk. Since disk *copy programs also duplicate the modified catalog, you can use a disk copy program to duplicate an original 5.25-inch Program Disk. However,* file *copy programs prepare standard catalog entries on your disk. Therefore, you cannot use a file copying procedure to prepare an AppleWorks Program Disk.*

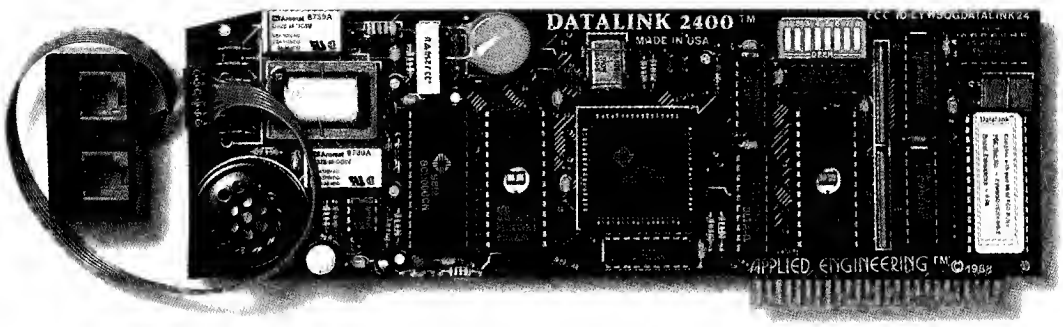
Here are two ways you can prepare a 5.25-inch AppleWorks Program Disk from your 3.5-inch version:

Put the file SEG.PR on the Startup Disk instead of the Program Disk. If you use this technique, insert the Startup Disk just before you issue an Apple-P command to print a document.

A second approach works only if you have expanded memory in your Apple. Let AppleWorks load onto the memory card. Name all your data disks /APPLEWORKS and copy the file SEG.PR onto each disk. Now AppleWorks will automatically find the SEG.PR file when you issue a Print Command.

While you can always copy the program files from a 5.25-inch disk onto a 3.5-inch disk, you cannot easily go the other way.]

The new DataLink™ 2400 modem from Applied Engineering, it's a lot more than just twice as fast.



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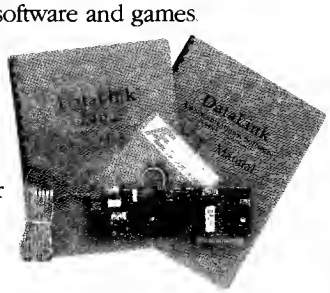

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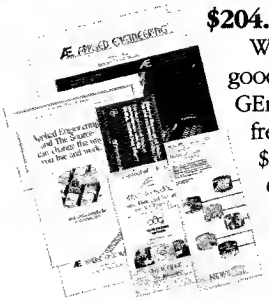

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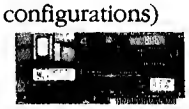

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Word Processor Tip

How to Eliminate Blank Pages

by Ann Bennett

Sometimes the AppleWorks word processor doesn't know when enough is enough. On those occasions, AppleWorks prints a document, then ejects a blank page from the printer. What causes that blank page? How can you eliminate the problem?

The blank page can appear if you insert extra Returns at the end of a document.

A Return by itself on a line is a command to your printer. It says "Print a blank line". One or two extra Returns at the end of a file usually have no impact on your output: AppleWorks prints the document followed by the blank lines and then ejects the page. However, on occasion, the blank lines will not fit on the current page. In those instances, AppleWorks prints the text of your document, goes to the next page, prints any remaining blank lines, and then ejects the new page. As a result, you get normally printed text followed by a blank page.

What Causes Extra Returns?

There are a number of ways extra Returns get into a document. Most frequently, you are the culprit because you press the Return Key a few times at the end of a document. You should remind yourself that the Return character is like any other character on the keyboard. Only press the Return Key at the end of a paragraph or when you want a blank line.

There are less obvious sources of the extra Returns. For example, extra Returns are often carried to the end of a document when you copy or move text within AppleWorks. They can also appear if you have an extra Return at the end of a macro or at the end of a startup or template file.

How to Eliminate Extra Returns

No matter what their source, it's easy to eliminate the extra Returns. Just follow these steps before you print any document:

1. Issue an Apple-Z command to display the Return symbols on the screen.
2. Issue an Apple-9 to move to the end of the document.
3. Use the Delete Key or the Apple-D command to delete any Returns that appear below the last line of text.

If you are an accomplished macro programmer, you can write a macro that issues an Apple-Z command, brings you to the end of the document, finds the last text character, automatically removes any extra Returns, saves the file on a disk, and responds to all the Print Command prompts and questions. You would run that macro instead of issuing an Apple-P command when you want to print a document.

[Ann Bennett teaches hearing-impaired and speech-impaired students at Valencia Community College in Orlando, Florida. She also teaches AppleWorks at Winter Park Adult Vocational School in Winter Park, Florida.]

Beagle Bros Update

Here are the current versions of the TimeOut-series programs:

DeskTools	2.0	QuickSpell	2.0
DeskTools II	1.1	SideSpread	2.0
FileMaster	2.0	SpreadTools	1.0
Graph	2.0	SuperFonts	2.0
MacroTools	2.0	Thesaurus	1.0
MacroTools II	1.0	TimeOut	2.1
Paint	1.0	UltraMacros	2.2
PowerPack	1.2		

All modules are compatible with AppleWorks versions 2.0 and 2.1.

How to Get More from QuickSpell

by Robert Sutherland

If you use TimeOut QuickSpell, you know why it is the most popular AppleWorks spell checking program. QuickSpell is fast and accurate; its operation is so simple it's almost intuitive.

Some of QuickSpell's flexibility and speed comes from its use of three separate dictionaries: An Internal Dictionary that is built into the program and checks such frequently occurring words as "the", "is" and "and"; a Main Dictionary that resides as a binary file on disk; and a Custom Dictionary that stores the words you tell QuickSpell to memorize. In this article, I describe techniques to help you manage the Custom Dictionary built into QuickSpell.

How to Edit the Dictionary

The QuickSpell Custom Dictionary is stored as the text file CUST.DICTIONARY on the dictionary disk. The data in this file consists of one blank line, then one word on each line separated by a Return. Every word you tell QuickSpell to learn is added to the bottom of the list of words in the file.

QuickSpell does not provide any mechanism to let you view or edit the words in the Custom Dictionary, but AppleWorks has the tools you need to manage the file. For example, imagine that you tell QuickSpell to memorize a misspelled word. For most users, that word is indelibly etched into QuickSpell's memory. However, you can use the CUST.DICTIONARY text file to create a new word processor or data base file, purge or correct the misspelled dictionary entry, and save the revised file on the dictionary disk.

I prefer to use the AppleWorks data base module to manage my QuickSpell Custom Dictionary; that lets me use the Apple-A command to alphabetize the words in the dictionary.

Here are the step-by-step procedures necessary to use the AppleWorks data base module to maintain the Custom Dictionary:

1. At the AppleWorks Main Menu, indicate you want to create a new data base file from a text (ASCII) file.
2. Give the pathname to the Custom Dictionary file on the QuickSpell disk. If the file is on a floppy disk, the pathname consists of a slash, the name of that disk, another slash, and the name of the file. For example, if the dictionary is stored on a disk named QUICKSPELL, the pathname is /QUICKSPELL/CUST.DICTIONARY. *[Ed: For more information about ProDOS pathnames, see the article entitled "What AppleWorks Users Should Know about ProDOS Pathnames" in the November 1986 issue of the **AppleWorks Forum**.]*
3. Indicate that each record consists of one category.
4. Give the file any temporary name that is convenient.
5. AppleWorks will now create a data base file with each record containing one word from the Custom Dictionary. You can edit this file the way you would modify the records in any data base file. For example, you can use the Arrange Command to sort the list alphabetically and look for duplicates or misspelled words.
6. Once you are finished editing the file, indicate you want to print a tables format report as a text (ASCII) file on disk. Give the same pathname you entered when you first loaded the Custom Dictionary file into AppleWorks. AppleWorks will store the revised Custom Dictionary on the dictionary disk.

AppleWorks Add-Ons...

Maintain Multiple Custom Dictionaries

As you use QuickSpell, your Custom Dictionary grows to accommodate the words you tell it to memorize. This slows down QuickSpell because it checks all unknown words against this longer list. While QuickSpell never becomes as lethargic as other spell checking programs, it eventually loses some of its zip. Here's a technique that restores the program's speed and enhances its flexibility.

The idea is simple: Create multiple Custom Dictionaries and use the appropriate dictionary for each word processor task. For example, if you use technical terms in your professional writing, you can create a custom dictionary just for your professional work. To do this, use the AppleWorks word processor to create a word processor file where the first line is blank and every following line has one correctly spelled technical term followed by a Return. Then "print" this document as an ASCII file on a 5.25-inch disk under the name CUST.DICTIONARY and copy the file MAIN.DICTIONARY from the QuickSpell disk onto your new disk. Now, whenever you need your professional dictionary, insert this dictionary disk, invoke QuickSpell, and your document will be checked against your professional Custom Dictionary.

If you use 3.5-inch disks or a hard disk, you can store multiple custom dictionaries with different file names. Then use FileMaster to change the name of the files to select the dictionary of choice. Remember that QuickSpell will always use the dictionary with the file name CUST.DICTIONARY.

Changing file names can be tedious. If you have UltraMacros, consider writing a macro that calls up the correct Custom Dictionary at the press of a single key.

[Ed: NAUG members should consider creating Custom Dictionaries for their own fields of interest and submitting their CUST.DICTIONARY files to NAUG. NAUG will compile these files into a "Professional Dictionaries" disk for distribution through the group's Public Domain Library.]

[Robert Sutherland is a professional musician and is the Music Librarian for the Canadian Opera Company.]

Quick Tip

How to Avoid Apple IIGS Lock-ups

by A. J. Weiss

If you run AppleWorks on an Apple IIGS, you will find that your computer occasionally locks up at the screen that says "Getting Started" at the top. NAUG Members Helping Members volunteer Jim Sulsona told me how to fix the problem.

When you start AppleWorks on a IIGS, the program checks to see if your printer is ready. If your printer is off, AppleWorks ignores the device and continues to boot. However, if your printer is on but the Select light is off, AppleWorks waits until you push the Select button to turn on the Select light.
So a trick to using AppleWorks with an Apple IIGS is to leave the printer off when you start the program. If your printer is on and your computer locks up at the Getting Started screen, press the Select button on the printer to unlock the computer without rebooting AppleWorks.

[A.J. Weiss uses AppleWorks to manage the mailing list for his boating club, and for his personal bookkeeping. Mr. Weiss lives in Sarasota, Florida.]

Understanding Compiled Macros

by Mark Munz

This is the fourth in a series of articles designed to help you use UltraMacros. This month's article describes how to add custom macros to the set of macros that come with UltraMacros. The author assumes you are familiar with the concepts covered in the first three articles of this series.

Last month, I described the advantages of compiled macros over keyboard macros, and how to write and compile your own macros. You learned that when you compile a macro you lose UltraMacros' built-in commands. In addition, when you quit AppleWorks, any macros you write are replaced by the macros originally built into UltraMacros. Fortunately, there are ways to avoid both these problems. This article describes how to store your macros for later use and how to write macros that become active when you start AppleWorks.

UltraMacros Lexicon

Here are some terms I will use in this article:

Macro: A collection of tokens and text which describe a command you want to add to AppleWorks. A "macro file" is any word processor document that contains macros.

Compiled Code: The machine-readable program created by the UltraMacros Compiler from a macro file. You cannot view or edit compiled code directly.

Current Macro Set: The set of compiled UltraMacros commands which are in memory and available for use.

Default Macro Set: The set of compiled UltraMacros commands which is stored on disk and is automatically loaded into memory when you start AppleWorks.

You can use the macro you wrote last month to explore these terms. Try this exercise:

Figure 1: Solid-Apple-W Macro

Enter this macro and save it as a word processor document:

```
start
<sa-w>:<all>
<oa-q><esc>
<rtn>3<rtn><rtn>Untitled<rtn>!
```

1. Boot up a copy of AppleWorks enhanced with UltraMacros. When the UltraMacros startup screen appears, UltraMacros loads the default set of macros from disk into memory.
2. With the AppleWorks Main Menu on the screen, issue a Solid-Apple-A command. The command works because Solid-Apple-A is part of the current set of macros that is created from the default set of macros at startup.
3. If you saved last month's Solid-Apple-W macro as a file on a disk, call it onto the screen now. If not, re-key the macro (see *Figure 1*) into a new word processor file.
4. Press Solid-Apple-W. Nothing happens because the Solid-Apple-W macro has not been compiled and the current set of macros (based on the default set) has no Solid-Apple-W command. Macro files do not become new AppleWorks commands until they are compiled.
5. Follow the steps outlined last month and compile the Solid-Apple-W macro. When the compilation is finished, a message appears telling you that your macro replaced the current macro set.

Now exit the macro compiler and press Solid-Apple-A. Nothing happens. However, when you press Solid-Apple-W, the screen flickers and you get a new word processor file named "Untitled". This occurs because the current set of macros is replaced every time you compile a macro. Thus, Solid-Apple-W is the only command in the current macro set. The default macros are still stored on disk, but you cannot restore the default macro set unless you re-boot AppleWorks.

6. Issue an Apple-S command to save the word processor file that contains the Solid-Apple-W macro. Quit AppleWorks, then boot up AppleWorks again.

How to Access the Current Macro Set

As AppleWorks boots, the default macros again load into memory from disk and become the current macro set. You can demonstrate this by pressing Solid-Apple-W. Nothing happens because your new macro is no longer in memory. However, the Solid-Apple-A macro functions again, as do all the other built-in macros.

Since you cannot edit macros that are in compiled form, you cannot directly edit the current macro set. However, you can list the current set of macros into a word processor file and edit the macros in that file. Then you can compile the edited word processor document to replace the current macros with your custom set.

Here is how to generate a word processor file from the current set of compiled macros:

1. Create a new word processor document from scratch and assign any name to the file.
2. With the blank document on the screen, call the TimeOut Menu and select "Macro Compiler". Choose the option "Display Current Macro Set". The word processor document will now contain UltraMacros code.

The document on the screen should include some familiar elements. There are words that look like part of a letterhead, tokens like <awp> and <rtn>, and the exclamation marks which signal the end of a macro. However, the listing is in a somewhat different format than we used last month. For example, instead of the format:

```
<sa-p>:<awp>
<oa-p><rtn><rtn><rtn>!
```

you see

```
P:<awp><oa-p rtn rtn rtn>!
```

The macros on the screen are in a condensed format and differ from the syntax you learned last month. Note these differences:

- The part of the macro which associates a macro with a keystroke is abbreviated when the keystroke is a Solid-Apple combination. For example, the token <sa-p> at the beginning of this macro becomes "P".
- "<" and ">" marks only appear at the beginning and end of a series of tokens. UltraMacros replaces those symbols with colons or spaces when they are not necessary.
- The macro is condensed; there are no lines or spaces to make the macro easier to read.

The Macro Compiler displays the current set of macros in an abbreviated format. Even though this listing looks different from the file originally used to create the macro, it is functionally equivalent and syntactically correct. However, this efficiency comes at a loss of clarity. Output generated by the Macro Compiler is usually more difficult to read than the original version of a macro.

How to Customize the Current Macro Set

The word processor file on your screen contains a representation of the current macro set. You will now modify those macros. Follow these steps:

1. Use the Apple-N command to name this file "Original Set". Then issue an Apple-S command to save the file on disk.
2. Create a new word processor file from scratch called "Experiments". You will use this document to explore the current macro set.
3. With "Experiments" on the screen, press Solid-Apple-N. The name "Heather Brandt" appears.

   Randy Brandt is the author of UltraMacros, and Heather is Randy's daughter. You will modify

How to Annotate a Macro

Like most programming languages, UltraMacros lets you document your work. While there are many ways to add comments to a macro file, the convention is to include your comments within braces ({ }). These messages do not become part of the compiled macro.

Syntax Rules for Comments

Comments can appear after "start" in the file containing your macros or in the middle of a series of tokens. The correct format to include comments in the middle of a macro is " ... <esc {comment} rtn>... ". Comments may not contain exclamation marks, "<" symbols, or ">" symbols.

Last month's macro could be annotated as follows:

```
start
      { Solid-Apple-W adds a blank word }
      {   processor file to the desktop }

<sa-w>:<all     { This macro is           }
                { available everywhere    }
                { in AppleWorks           }

oa-q esc        { Go to the Main Menu     }

                { Create a new file       }
                { for the word processor  }
                { called 'Untitled'       }

rtn>3<rtn><rtn>Untitled<rtn>!
```

When you use the macro compiler to display the current macro set, the screen shows the condensed version of the macro, without comments. For example, the macro above becomes:

```
W:<all><oa-q esc rtn>3<rtn rtn>Untitled
<rtn>!
```

Although the operation of this macro is easy to envision, even in its condensed form, imagine what happens when more complex macros are converted. Be sure to save the annotated version of a macro file if you intend to change the macro in the future.

the Solid-Apple-N macro so it displays your name, not Heather's.

4. Use Apple-Q to return to the word processor file "Original Set".
5. Use Apple-F to find the string "Heather". AppleWorks scrolls to the following macro:

   ```
   N:<awp>Heather Brandt!
   ```

6. Replace Heather's name with your own.
7. Issue an Open-Apple-Escape, select the Macro Compiler, and compile the file. The compiled version of this modified file is now the current macro set.
8. Use Apple-Q to return to the word processor document "Experiments" and try Solid-Apple-N again. Your name will appear.
9. Use Apple-N to change the name of the "Original Macros" file to "My Macros", and save the file.

You can customize other macros in the default set. For example, the Solid-Apple-B macro starts a memo in a standard format. The Solid-Apple-J macro types a return address at the insertion point. You can scroll through this file and change the text of existing macros to your taste. When you want to see the effect of your change, re-compile the file "My Macros", use Apple-Q to return to the "Experiments" file, and test the command.

Issue an Apple-S command to save the file "My Macros" whenever you make a significant change.

How to Add Your Own Macros

Now that you can modify the macros built into UltraMacros, I will describe how to add new macros to the existing macro set. You write a macro in a word processor file, test the macro, then use the clipboard to move the macro definition into a larger set of macros.

Follow these steps:

1. Create a new word processor file that contains the macro you want to add to UltraMacros. This could be a macro of your own design, or one listed in the *AppleWorks Forum*. Issue an Apple-S command to save the word processor file on disk.

2. Use the Macro Compiler to compile the new macro. This replaces the current macro set, which you saved in the word processor file "My Macros".
3. Test the new macro. If necessary, edit the word processor file containing the macro, re-compile, and re-test the macro.
4. When the macro works as expected, use the Apple-C command to copy the macro to the clipboard.
5. Use Apple-Q to return to the file "My Macros".
6. Make sure the key you want to use for your new macro does not conflict with one already in use. You can use AppleWorks' Apple-F command to search for the sequence that marks the beginning of a conflicting macro. In this example, search for the text "W:<". You will discover that Solid-Apple-W is not used by any of the macros built into UltraMacros.
7. Press Apple-9 to get to the end of the macro file.
8. Use the Apple-C command to copy the text from the clipboard to the end of the file "My Macros".
9. Use Apple-S to save the file "My Macros".

You can now compile the file "My Macros" and use all the built-in UltraMacros commands, your customized versions of the built-in macros, and the new Solid-Apple-W command.

How to Make Your Macros the Default Set

The word processor file "My Macros" is stored on disk, and the compiled version of those macros is in memory as the current set. However, the next time you boot AppleWorks, the default macro set will be the loaded from disk and your customized set of macros will not be active. You would have to re-compile your custom set at the beginning of every session.

Here is how to convert the current set of macros into the default set that automatically becomes active when you start AppleWorks:

1. Modify the file "My Macros" so it contains the macros that meet your specifications.
2. Compile the file "My Macros". Your custom set loads into memory and becomes the current set.
3. Call the TimeOut Menu and select "Macro Options".
4. Select choice #3, "Save Current Macro Set as the Default Set".
5. Answer "No" when you are asked if this set is to be a startup macro.

UltraMacros tells you the file ULTRA.SYSTEM was changed to hold the customized macros. If you quit AppleWorks now, your custom set of macros will be active when you return to AppleWorks.

Conclusion

You now know how to convert the current macro set into a word processor document, how to customize those macros, how to add macros to the original set of macros, and how to replace the original macros with your enhanced macro set. Next month you will learn more efficient ways to store macros and how to use other commercial macro products, such as MacroTools.

[Mark Munz, author of Late Nite Patches, SoftWorks, and several macros on the MacroTools disk, is the AppleWorks SIG leader for Northwest Apple Pickers, in Tacoma, Washington.]

Correction

A review of *Hands-On AppleWorks* that appeared in the October 1988 issue of the ***AppleWorks Forum*** incorrectly stated there are separate Teacher's Guides and disks for each AppleWorks module. *Hands-On AppleWorks* offers one Teacher's Guide and one template/exercise disk that are used with all three AppleWorks modules.

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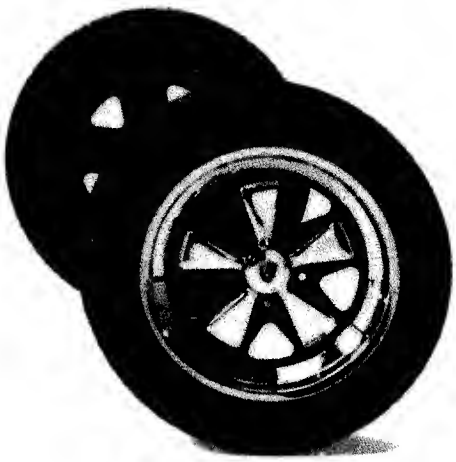

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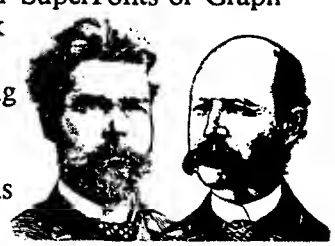

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Enhanced Output from Dot Matrix Printers

by John M. Sklar

Most dot matrix printers offer different qualities of text output. For example, an ImageWriter II can print in Draft Quality, Standard Quality, and Near Letter Quality modes. Draft Quality produces readable text. It is acceptable for preliminary output of documents and for listings of computer programs. Near Letter Quality produces output that looks as if it came from a daisy wheel printer. Standard Quality produces output between these two other modes.

Most printers provide two ways to control the quality of your output. You can either press switches (or combinations of switches) on the printer control panel, or you can send appropriate control codes to change the printer's internal switch settings.

If you are the only person who uses the printer and if the printer is close to the computer, the easiest way to control print quality is with the switches on the printer. While ImageWriter II printers have a "Print Quality" button to make this process easy, other printers hide this capability somewhere in the printer manual. For example, some Epson and Epson-compatible printers require that you press unmarked combinations of switches to invoke the different print quality modes. Examine your printer manual and use a Post-it Note to remind you of the different combination of buttons to press.

If you share your printer with others or if your printer is not next to your computer, it is inconvenient to get up and change the printer switch settings. I will describe two procedures you can use to configure AppleWorks so it provides output in any print quality available from your printer. One approach works on Apple IIe or IIGS computers, the second approach works with the Apple IIc or IIc Plus. While I will assume you have an ImageWriter II, you can generalize these instructions to get enhanced output from most other dot matrix printers. You can also use these techniques to get other output-enhancements available from your printer.

Procedure for Apple IIe and IIGS

The first technique only works with Apple IIe and IIGS computers, and requires you to add three different versions of your printer onto the AppleWorks Printer Menu. One "printer" generates Draft Quality output, one yields Standard Quality, and the third produces Near Letter Quality. Once these three "printers" are installed in AppleWorks, you can pick the quality output you desire from the Printer Menu.

When you are using an Apple IIe or IIGS and specify your printer setup, AppleWorks lets you specify a set of codes to initialize a printer interface card. The usual setting is Control-I 80N, but you can change this code within AppleWorks. I will describe how to add your printer to the AppleWorks Printer Menu three times. Each printer specification will have the standard Control-I 80N followed by the code necessary to produce a different quality output. When you print, select the desired quality from the Printer Menu; AppleWorks sends out the printer interface code and the code to command the desired print quality.

Follow these steps:

1. At the AppleWorks Main Menu, select choice #5, "Other Activities".
2. At the Other Activities Menu, select choice #7, "Specify information about your printer(s)".

How to Use the ImageWriter Switches to Control Print Quality

The "Print Quality" switch on the ImageWriter II works only when the "Select" light is out. Follow these steps to use the ImageWriter switches to set different print qualities:

1. With the printer power on, press the "Select" button. The Select light will go out.
2. The light on the left-hand portion of the Print Quality bar indicates that the printer is in Draft Quality mode. Press the Print Quality button once and the right-hand portion of the Print Quality bar lights to indicate Standard Quality mode. Press the Print Quality button again and the complete bar lights to indicate Near Letter Quality mode.
3. Press the Select button again to complete the process.

How to Use These Techniques with Epson and Epson-Compatible Printers

The techniques described in this article also work with all late-model Epson printers that offer "SelecType". "SelecType" lets you choose print quality with the "Online", "Form Feed", and "Line Feed" buttons. (The new Epson EX 800 printer does not use the SelecType method, but has individual buttons for you to set the desired print quality instead.)

Here's how to use the panel on an Epson printer to select its high-print quality mode:

1. Switch to SelecType mode by pressing the Online and Form Feed buttons simultaneously. Release them when the printer beeps.
2. Press the Online button once to select Near Letter Quality mode, then press the Form Feed button to lock in that selection.
3. Press the Line Feed button to leave the SelecType mode, then press the Online button to prepare the printer to receive data.

Automatic Selection of Print Quality

You can use the techniques described in the accompanying article to add a "Near Letter Quality" Epson printer to your AppleWorks Printer Menu. The code to invoke Near Letter Quality on an Epson printer is Escape x1. Use the code Escape x0 to return to Draft Quality output (use the number zero, not the letter "O").

3. At the Printer Information Menu, remove all the printers.
4. Still at the Printer Information Menu, indicate you want to add a printer and indicate it is an ImageWriter. Name the printer "Letter Quality" and indicate it is in slot #1.
5. At the Add a Printer Menu, select choice #5, "Interface Cards" and respond "No" when AppleWorks asks you if the default code of Control-I 80N is correct. Then re-enter the Control-I 80N code followed by the code to invoke Letter Quality output. On an ImageWriter II, that code is "Escape a2", so the complete interface card setup code is

   `Control-I 80N Escape a2`

   Then type a caret mark (^), a shifted "6".

   *[Ed: For additional help entering interface card settings, see the article entitled "How to Configure AppleWorks for Different Interface Cards" in the September 1986 issue of the **AppleWorks Forum**.]*
6. Add a "Standard Quality" printer by repeating steps 4 and 5 above. This time call the printer "Standard" and enter the interface card setting of "Control-I 80N Escape a0" (all zero's).
7. Repeat steps 4 and 5, but this time call the printer "Draft Quality" and enter the interface card setting of "Control-I 80N Escape a1".

If you want to print very small letters on your ImageWriter II, follow the steps above but name one of the printers "Half Height" and enter an interface card setting of "Control-I 80N Escape w".

(If you use the half-height printer codes, you must add the code "Escape W" to your other printer interface card settings to cancel the half-height text. For example, the correct code for letter quality output becomes:

```
Control-I 80N Escape W Escape a2
```

Your copy of AppleWorks can now produce three different qualities of output on your printer.When you ask AppleWorks to print, you will get a menu of printer choices that reflect the versatility of your printer. Select the print quality you want and enjoy the additional control AppleWorks gives you over your hardware.

Apple IIc and IIc Plus Instructions

If you use AppleWorks on a IIc or IIc Plus, you cannot change the printer interface card settings; AppleWorks detects that you are working on a IIc-series computer and does not display the interface card settings option on the Printer Information Menu. However, there are other ways to send the appropriate codes to your printer. For example, you can embed the enhanced printer codes in three different spreadsheets and send the code by printing the appropriate spreadsheet before printing a document.

The following steps describe this technique:

1. Create a new spreadsheet "from scratch" and name the file "Near Letter Quality".
2. With the Near Letter Quality spreadsheet on the screen, issue an Apple-O command to go the Options Menu.
3. With the Options Menu on the screen, issue an SC command to indicate you want to send a special code to your printer.
4. Enter the code for near letter quality printing. On an ImageWriter II that code is **Escape a2**. Then type a caret mark (^), a Shifted-6.
5. Issue an Apple-S command to save this file on a separate AppleWorks data disk. You can call this your "Printer Configuration" disk.
6. Repeat steps 1-5 with the following changes:

   Call the second spreadsheet file "Standard Quality" and enter the codes **Escape a0**.

   Call the third spreadsheet file "Draft Quality" and enter the codes **Escape a1**.

   Save both the Standard Quality and Draft Quality spreadsheets on the same Printer Configuration disk.
7. Keep the three spreadsheet files on your AppleWorks desktop. When you want to print a document in Near Letter Quality, use the Apple-Q command to switch to the Near Letter Quality spreadsheet, print the spreadsheet, then return to your word processor document. When you issue an Apple-P command, the document will print in Near Letter Quality mode.

Once you understand the techniques described in this article, you can use these procedures to get different types of output from your dot matrix printer. Spend some time with the Control Codes section of your printer manual to learn the capabilities of your printer, and you might be surprised by some of the things you can do with AppleWorks. ▩

[John Sklar teaches AppleWorks and other computer courses at Cardinal Stritch College in Milwaukee, Wisconsin.]

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How to Differentiate between Zeros and Blanks

by Warren Williams and Cathleen Merritt

If you stop the average person on the street and ask if there is a difference between having "zero" of something and having "blank" of something, you will be considered strange indeed. However, ask a spreadsheet user that same question and you can spark a lively discussion.

For spreadsheet users, there is a significant difference between blanks and zeros. For example, consider a gradebook spreadsheet. When you develop a gradebook, you must be careful to differentiate between a student who gets a score of zero and a student who does not take a test at all.

In this article, we will describe two techniques that let you differentiate between zeros and blanks. The first idea is based on the @AVG function's ability to differentiate between blanks and zeros. The second approach is more general and uses the @COUNT and @IF functions to make this differentiation.

How to Differentiate When Averaging Numbers

It is relatively easy to differentiate between blanks and zeros when averaging numbers; AppleWorks' @AVG function helps you make that distinction. You tell @AVG whether or not you want to treat blanks as zeros when you choose the syntax for the @AVG formula.

The following three AppleWorks statements appear similar but can produce different results:

Syntax 1:
`@AVG(B3...B9)`
[Average a range of cells.]

Syntax 2:
`@AVG(B3,B4,B5,B6,B7,B8,B9)`
[Average a list of cells.]

Syntax 3:
`@AVG(B3...B9,B10,B11)`
[Average a mixed range and list of cells.]

AppleWorks automatically ignores blank cells when it averages a range of cells. For example, AppleWorks ignores blank cells in the range B3 through B9 if you enter the @AVG formula using Syntax 1 or Syntax 3 above. If you use Syntax 2, AppleWorks treats blanks as zeros.

Two Examples

Teachers who want to allow "excused absences" from a test or assignment should use Syntax 1. When you tell AppleWorks to average a *range* of cells, you leave the cell blank when a student has an excused absence. Blank cells are not included in the calculation when you tell AppleWorks to compute the average of a range of cells. However, when you use Syntax 1, scores of zero are included in the computation of the average; the teacher should enter a score of zero for students with unexcused absences.

Teachers who want to treat missed tests as zero scores should use Syntax 2 when writing the @AVG formula. That syntax does not differentiate between blanks and zeros, and treats blanks as scores of zero.

Investors who use the AppleWorks spreadsheet to track their successes should calculate the average yield over a list of cells, not a range. In that way, the calculation will include all stocks, even if you do not enter a value of zero in the dividend payment cell in the spreadsheet model.

To summarize, differentiate between blanks and zeros when averaging a list of numbers by specify-

Three Ways to Detect Erroneous Entries

Complex spreadsheets can be useful tools when they are designed well, and good design anticipates mistakes and special circumstances.

Unfortunately, you cannot always predict what will happen when someone using your spreadsheet leaves a cell blank, or enters a value of 35 when they intend 3.5. The impact of such errors is particularly disquieting when you consider the interdependent nature of many formulas. One erroneous entry can distort an entire spreadsheet.

You can use the techniques in the accompanying article to catch errors resulting from empty cells. You can also use the @IF function to be sure that values are within an expected range. Here are three ways to call attention to an error:

- The function @ERROR is appropriate when a required value is missing or out of range.

  ```
  Example: @IF(C5<0,@ERROR,C5-B5/B5)
  ```

  If cell C5 contains a value less than zero, "ERROR" will appear in this cell.

- The function @NA is appropriate when a value should not be calculated or is missing.

  ```
  Example:
  @IF(@COUNT(C5...C5)=0,@NA,C5-B5/B5)
  ```

  In this example, NA will appear in the cell if cell C5 contains a number.

  The @NA function is useful because it helps you differentiate between errors you trap, and errors AppleWorks detects. AppleWorks automatically displays "ERROR" when it cannot evaluate an expression.

When a cell displays NA or ERROR, all formulas based on that cell also become NA or ERROR. Thus, an erroneous entry becomes easy to detect.

- The third approach does not use a built-in AppleWorks function, but exploits a characteristic of the spreadsheet's display. Whenever a number has too many digits to fit within the width of a cell, AppleWorks fills the cell with pound signs to indicate an overflow error. This makes the erroneous entry cell more noticeable than if you display the "NA" or "ERROR" messages.

  ```
  Example: @IF(C5=10,999999999,C5-B5/B5)
  ```

  AppleWorks cannot fit the value 999999999 into a six-character cell, so the program displays "######".

—William Marriott

ing the cells to be tested as a range of cells. If you want to treat blanks as zeros, specify the cells to be averaged as a list of cells.

Another Way to Differentiate Blanks and Zeros

Although the sophistication of the @AVG function makes it easy to differentiate between cells that contain zeros and those that are blank, there are other occasions when you want to make this distinction. For example, consider a company-wide inventory system where you want to differentiate between an item that is on the inventory list but that you do not carry in stock and an item that you generally carry in stock but is sold out. Or imagine a spreadsheet that computes taxes. You might want a calculation to take place if a particular cell contains a zero, but no calculation to take place if the referenced cell is blank.

Fortunately, AppleWorks gives us a way to differentiate between zeros and blanks in any situation. The technique uses two functions built into AppleWorks: @COUNT and @IF.

The @COUNT function counts the number of cells in a range that contain numbers. For example, the formula @COUNT(A10...G10) computes the number of numeric entries in cells A10 through G10. Similarly, the formula @COUNT(A10...A10) yields a "1" if cell A10 contains a number or formula, and yields a zero if cell A10 is blank or contains a label. (The @COUNT function only works properly when you use the "range" syntax...even if you are checking a single cell as in this example.)

You can combine the @IF and @COUNT functions to tell AppleWorks to yield one result if a cell is blank and another result if a cell contains a value

Figure 1: Spreadsheet that Differentiates between Blanks and Zeros

	A	B	C	D
1	Company	Original	Current	
2	Name	Price	Price	Change
3				
4	Abacus Computers	23.50	32.75	39.4%
5	Baker Enterprises	34.75		NA
6	Cooper Industries	74.25	72.75	-2.0%
7	Delta Corporation	53.00	59.50	12.3%
8	Eureka Foods	12.25	13.00	6.1%
9	Fearless Franks	74.00	74.75	1.0%

or a zero. Consider the example in *Figure 1*.

The spreadsheet in *Figure 1* contains a list of stocks along with their original purchase price and the current price. AppleWorks calculates the percent change between each stock's original price and its current price.

This spreadsheet handles a problem that often occurs when you work with stock prices. That is, you sometimes do not know the current price of some stocks in your portfolio. The spreadsheet in *Figure 1* displays "NA" when it does not have sufficient information to compute a change in price. However, it displays the correct result if a stock becomes worthless and its price drops to zero. That is, the spreadsheet differentiates between a price of zero dollars and the lack of any price information.

The technique that accomplishes this differentiation is evident if you examine the formula in cell D5:

```
@IF(@COUNT(C5...C5)=0,@NA,C5-B5/B5
```

The first part, (@IF(@COUNT(C5...C5)=0), checks if cell C5 contains a number. If C5 is blank or contains a label, this "test" is true and the formula displays the message "NA".

If cell C5 contains a number, the value of @COUNT(C5...C5) does not equal zero. This "test" fails, and the formula displays the results of C5-B5/B5.

You can generalize this technique to other applications. For example, consider the following formula:

```
@IF(@COUNT(A1..A1)=0,@AVG(B6..B10),@AVG(G6..G10))
```

In this example, the result that appears depends upon the contents of cell A1. If cell A1 contains any number including zero, the formula computes the average of cells B6 through B10. If cell A1 is blank, the formula averages cells G6 through G10.

Summary

Thus, there are at least two ways to differentiate between zeros and blank cells in the AppleWorks spreadsheet module:

1. Use the range-type syntax with the @AVG function when you average numbers.
2. Use @IF in combination with @COUNT to check if a cell contains a number or is blank.

*[Dr. Warren Williams teaches in the Educational Technology program at Eastern Michigan University. He is a technical advisor to **NAUG** and a frequent contributor to the **AppleWorks Forum**.]*

An Inexpensive Way to Connect to AppleWorks Bulletin Boards

by Bruce Shanker

A+ Magazine recently named NAUG's AppleWorks Bulletin Board, the Electronic Forum, "the most significant AppleWorks bulletin board" in the nation. This article describes how to avoid long distance telephone charges when you access the Electronic Forum and other boards around the country. The author assumes you know how to use your modem and telecommunications software.

Over the past year I've learned a lot about AppleWorks from people I never met; by communicating with them on some of the electronic bulletin board systems throughout the United States. My favorite boards are **NAUG**'s Electronic Forum (313-482-8090) and Pro-Beagle (619-558-6151), the board sponsored by Beagle Bros. However, both the **NAUG** board in Michigan and the Beagle Bros board in California are long distance calls for me. In this article, I will describe how you can reach boards like these and avoid long distance telephone fees.

The methods I describe use PC Pursuit, a discount telecommunication service. PC Pursuit costs $25 a month and gives you unlimited evening and weekend access to bulletin boards within the local calling range of any one of the 33 cities listed in *Figure 1*.

What is PC Pursuit?

PC Pursuit is a service offered by the Telenet Communication Corporation, one of the largest telecommunications networks in the country. You can get a PC Pursuit account by calling Telenet at 1-800-835-3638, completing some forms, and authorizing Telenet to charge your MasterCard or Visa account a $25 processing fee and $25 per month. This fee entitles you unlimited use of their service between 6 p.m. and 7 a.m. weekdays and all day on weekends and national holidays. Access during other hours costs $10.50 an hour.

How to Call a Bulletin Board Near a PC Pursuit City

You access PC Pursuit by calling a local Telenet node. (There are approximately 700 Telenet numbers throughout the country; you receive a list of access numbers when you join PC Pursuit.) Once on Telenet, you indicate which city you want to call and enter your PC Pursuit user ID number and password. Telenet connects you to the correct city. Then you issue a command for PC Pursuit to dial the telephone number of the bulletin board you want to contact and PC Pursuit connects you to that board.

How to Use PC Pursuit

Here are step-by-step directions on how to use PC Pursuit to contact a remote computer.

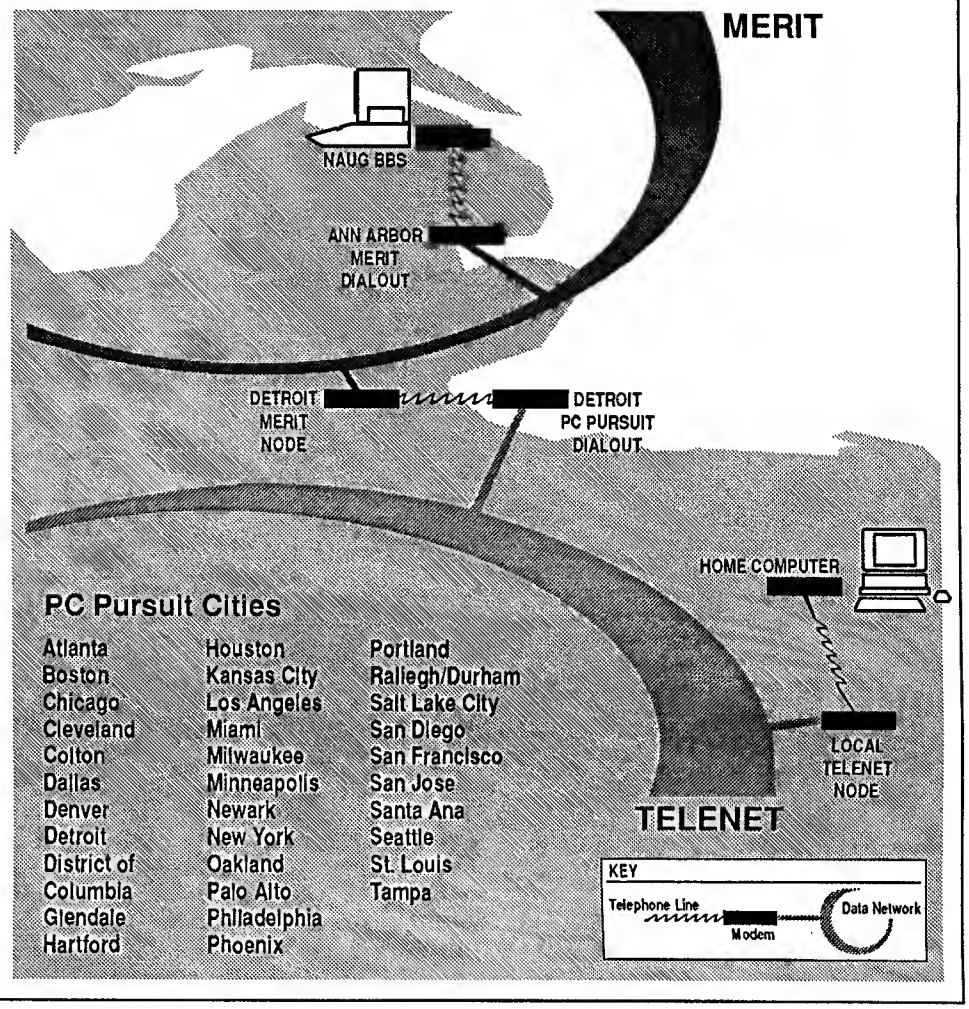
1. Set up your software to communicate with Telenet.
2. Dial your local Telenet access number.
3. You will get a "CONNECT" message from Telenet. Press the Return Key, type the letter "D", and press the Return Key again. (Enter "@D" if your Telenet node, modem, and the bulletin board you are calling all offer 2400 baud communications.)
4. Telenet will send the message "Terminal =". Enter "D1" and press the Return Key.

5. Telenet will display an @ sign. Enter the letter "C", a space, the letter "D", a slash, the PC Pursuit access code for the city you are calling (supplied in the PC Pursuit membership kit), another slash, and then the number 3, 12, or 24 depending on the baud rate you are using.

   Next, enter a comma, your PC Pursuit ID number, another comma, and your PC Pursuit password. The password will not appear on the screen as you type. Then press the Return Key.

6. If the PC Pursuit "port" you are calling is available, you will get the message "CONNECTED"; otherwise you will see "BUSY" and you should try again. Re-dial immediately; there are many PC Pursuit modems in each city and one should become available soon.

Figure 1: Using Two Networks to Telecommunicate



7. Type "ATZ" and press the Return Key.

8. Type "ATDT", then the 7-digit telephone number of the bulletin board you are trying to reach. Do not enter an area code or the long-distance prefix "1".

   If the board you are calling is available, you will be connected to that board; proceed as if you called the board directly. If the number you call is busy, Telenet will post a "BUSY" message on the screen and you should try again.

Using PC Pursuit to Reach NAUG

Although Ypsilanti, Michigan, home of the **NAUG** Electronic Forum, is within the 313 area code, it is not a local call from Detroit and cannot be called directly by PC Pursuit. However, you can use PC Pursuit to contact MERIT, a regional telecommunications network available in Michigan. Then you can use the MERIT network to contact the **NAUG** BBS. You need no special equipment to use this system, but you must be able to send a Break signal from your computer if you want to download and upload files when using MERIT to access the **NAUG** board.

Figure 1 depicts how you use PC Pursuit and the MERIT network to call the **NAUG** BBS. Here are the steps necessary to use PC Pursuit and the MERIT network to contact the **NAUG** BBS:

1. Follow steps 1-4 described above.

2. Type "C D/MIDET/12,yourID,password" and press the Return Key. (Substitute your PC Pursuit ID number for "yourID" and your PC Pursuit password for "password".)

3. Wait for the "CONNECTED" message. Type "ATZ" and press the Return Key.
4. Type "ATDT5770335" and press the Return Key (this is the local telephone number for MERIT in Detroit).
5. After a few moments, PC Pursuit should respond with "CONNECT 1200". Press the Return Key twice.
6. You are now connected to the MERIT network. Press the Return Key again when you see "%Terminal=".
7. MERIT will ask "Which host?". Type "DIALOUT-AA" and press the Return Key.
8. MERIT will respond with "AT" and then "OK". Type

   ```
   ATSMCSPF2SLCB0SLCC0SLCF0D94828090
   ```

   (all 0's are zeros, not the letter "O") and press the Return Key.
9. MERIT will dial the **NAUG** BBS in Ypsilanti. If **NAUG** is not busy you will see the following:

   ```
   ANSWER TONE
   INITIATING
   BUFFERED 212
   ```

   and you will be connected to the **NAUG** bulletin board. At this point you can communicate as if you had dialed the board directly.
10. If you want to upload or download files to the **NAUG** board, you must configure MERIT so it handles those files. Follow these steps any time after you connect to the **NAUG** BBS but before you try to transfer a file:

    A. Send a "Break". The method used to send a Break signal varies from one communications program to the other.

    B. Wait for MERIT to send a "!" prompt. Type

    ```
    %REMOTE BINARY=ON
    ```

    then press the Return Key.

    C. Send another Break signal.

    D. Wait for another "!" response and type

    ```
    %BINARY=ON
    ```

    and press the Return Key.
11. When you terminate your work on the **NAUG** BBS (usually with the "T" command), you return to MERIT. When "CDS>" appears, send a Break signal from your communications program. MERIT will respond with a "!". Type %QUIT and press the Return Key. When "Which Host?" appears, type "Q" to exit the MERIT system. You are now returned to the PC Pursuit connection in Detroit. *[Ed: If you cannot send a Break from your system, you can hang up your modem at this time. This doesn't damage anything and it does work.]*

Disadvantages of Using PC Pursuit and MERIT to Contact NAUG

While you can save money by using PC Pursuit and MERIT, there are three disadvantages to using this system. First, you obviously have to go through a lot of steps to use PC Pursuit to access

How to Get Started in Telecommunications

Getting started telecommunicating with other computer users can be an intimidating experience. You have to learn how to connect a modem, how to use communications software, and how to communicate with the remote computer system. Here are two books to help you get started:

Glossbrenner, Alfred. *The Complete Handbook of Personal Computer Communications* (2nd ed.). New York: St. Martins Press, 1985.

Bowen, Charles and David Peyton. *How to Get the Most Out of CompuServe* (3rd ed.). New York: Bantam Books, 1987.

In addition, review these articles from the ***AppleWorks Forum:***

"How to Get Started with **NAUG**'s Bulletin Board", June 1988.
"How to Check for New Material on the **NAUG** Bulletin Board", April 1987.
"How to Download Files Using Xmodem Protocol", November 1986.

the NAUG BBS. If the NAUG board is busy, you will have to repeat those procedures until you can log onto the system.

Second, there is often noise in the communications lines that cause stray characters to appear on your screen.

Finally, file transfers from the NAUG board become very slow. What is normally a three minute transfer will now take about 12 minutes. Remember, however, that you are not paying any long distance telephone charges.

Despite these disadvantages, I find the combination of PC Pursuit and the MERIT network a powerful communication alternative. It reduces my total telecommunications bill to $25 a month and gives me a sense of accomplishment as I transfer data across the country through linked modems and sophisticated communications systems. ■

[Bruce Shanker is a mathematics teacher at Kensington High School in Philadelphia, Pennsylvania. Bruce is one of NAUG's "Beagle Buddies".]

How to Get Help with Beagle Bros and Pinpoint Enhancements

by William Marriott

Each month, the ***AppleWorks Forum*** lists the member-volunteers who offer technical support for AppleWorks products. This month's list identifies the volunteers who can answer questions about Beagle Bros and Pinpoint enhancements for AppleWorks. Next month's issue will contain a list of members who offer help with other AppleWorks-compatible software.

Beagle Bros/Pinpoint

How to Use This List

Use this month's list to find help with Beagle Bros and Pinpoint enhancements. To the left of each volunteer's name is one or more numbers indicating the enhancements that consultant supports. Volunteers are listed alphabetically by state.

1 = (Super)MacroWorks
2 = UltraMacros
3 = QuickSpell
4 = DeskTools
5 = FileMaster
6 = SideSpread
7 = SuperFonts
8 = Graph
9 = Pinpoint Desk Accessories
10 = Point to Point
11 = Graphic Edge
12 = Document Checker
13 = KeyPlayer

Alaska

9,10 Ross Lambert
Unalakleet AK
907/ 624-3161 M-Sat 9am-9pm
GEnie R.W.LAMBERT

California

9 Michael Beebe
San Diego CA
619/ 224-8823 Daily 5pm-10pm
619/ 221-2363 M-F 8am-4pm

9 Stephen Brewer
San Bernadino CA
714/ 883-0365 Sun 7pm-10pm; M 7pm-10pm
714/ 882-3308 T-F 10am-5pm
NAUG BBS #43
CompuServe 73277,2500

1,2,3,4, 5,7,8 Robert Demmon
Coronado CA
619/ 435-0554 M-F 3pm-10pm; S-S 9am-10pm
619/ 435-0520 M-F 3pm-10pm; S-S 9am-10pm

2,7 Don Farrar
Pleasant Hill CA
415/ 932-5509 M-F 6pm-8pm

1 George Gray
Los Angeles CA
213/ 774-4131 M-F 10am-10pm

2,9,10, 11,12, 13 Terry Higgins
Hayward CA
415/ 887-7499 Daily 8am-11pm answ mach
GEnie T.HIGGINS1
The Source BFF597

1,9 Berenice Maltby
Corona del Mar CA
714/ 640-7369 9am-9pm

9 Tom Militello
Rancho Palos Verdes CA
213/ 541-2766 M-F 4pm-8pm

1,2,3, 5,7 Will Nelken
San Rafael CA
415/ 456-1798 M-F 10am-3pm
415/ 459-0845 M 3pm-9pm; Sat 10am-10pm

2,3,4, 5,6,7 Jim Pennington
Long Beach CA
213/ 420-8629 24-hr. answ mach

9,10 Dale Shields
Torrance CA
CompuServe 73177,2323
GEnie D.G.SHIELDS

Colorado

3,4,5, 6,9,10 David Gillaspie
Lakewood CO
303/ 431-6100 M-F 9am-Noon
303/ 988-0994 M-F 7am-9pm

3,10 Harry McMullen
Littleton CO
303/ 795-5510 Daily 4pm-9pm
GEnie HARRYMC

1,2 Larry Thaete
Boulder CO
303/ 939-9072 MWF 5pm-9pm
303/ 492-2717 M-F 9am-3pm

Connecticut

9,12 Martin Knight
Middletown CT
203/ 346-9698 Daily 6pm-9pm
GEnie M.KNIGHT
AppleLink PE: AFL Marty

1,2,3,4, 5,6,7,8, 9 Emery Roth
Washington CT
203/ 868-7118 Daily 3pm-8:30pm

9,10,11, 12,13 Newton Shaffer
Gales Ferry CT
203/ 464-9716 Daily 4pm-11pm

Florida

1 John Andrianoff
Ft. Pierce FL
305/ 466-6653 School Days
3:30pm-8:30pm;
Other Days Noon-8pm

2,3,4,5, 6,7,8 H. Clay Bailey III
Jacksonville FL
904/ 744-2499 W-Sun; 7pm-11pm
904/ 725-3477 Daily 9am-6pm

1 Larry Brooks
Tampa FL
813/ 874-7355 M-F 6pm-9pm

2 Thomas Stanius
Opa Locka FL
305/ 375-2095 ext. 8691 M-F 8am-5pm
305/ 624-6162 M-F 6pm-Midnight;
S-S 10am-10pm
CompuServe 73230,1570

1,2,3,4, 5,6,7,8 Jeff C. Strichard
Ft. Lauderdale FL
305/ 587-9590 M-F 6pm-11pm; S-S all day
305/ 763-3883 M-F 9am-4pm

Georgia

1,2,3,4, 5,6,7, 10 Jim Sulsona
Doraville GA
404/ 455-0853 Daily 9am-Midnight
CompuServe 76440,227
404/ 446-9048 #187

Illinois

9 J. Terry Flynn
Lake Bluff IL
312/ 680-0980 M-F 8am-5pm
312/ 234-2820 M-F 6pm-9pm;
S-S 10am-9pm
The Source TCK890

2,3,4 Bowen Schumacher
Winnetka IL
312/ 256-1771 S-S 11am-5pm
212/ 546-0633 M-F 9am-7pm

1 Victor Weisskopf
Lincolnwood IL
312/ 674-7400 M-F 9am-5pm

Indiana

9,10 Stanley Boler
Knightstown IN
317/ 345-5663 M-F 5pm-11pm

Kansas

9 Fred Schwan
Leavenworth KS
913/ 651-2878

Maryland

3,6,7 Morgan Jopling
Crofton MD
301/ 721-7874 M-Th 7pm-9pm;
Sun 6pm-9pm

1,9,10, 11,12, 13 Ronald Romanowicz
Glencoe MD
301/ 472-4800 Daily 8am-4pm
301/ 472-2983 Daily 4pm-11pm

1,2,3, 4,5,6, 7,8 Michael Spurrier
Baltimore MD
301/ 298-0263 S-S 6pm-11pm
301/ 955-5938 School days 11am-1pm

Massachusetts

1 Jeff Weisenfreund
Newton MA
617/ 965-028 Daily 8pm-11pm

Michigan

9,10, 12,13 Jim Anker
Hazel Park MI
313/ 542-3910 M-F 9am-4pm
313/ 391-0033 M-F 6pm-10pm;
S-S 1pm-9pm

1 Arthur Daniel
Warren MI
313/ 445-7142 M-Th 7am-4pm
313/ 445-7105 M-Th 7:30am-8pm;
F 7:30am-4pm

2,3,7 William Marriott
Canton MI
NAUG BBS #288
CompuServe 72047,2770
GEnie W.MARRIOTT
innen@nuacc.bitnet

1,3 Bill Neef
Grass Lake MI
517/ 522-4689 Daily 8am-10pm

9 J. O'Connor
Rochester MI
313/ 853-1260 Daily 10am-9pm

9 Quality Computers
Grosse Pointe MI
313/ 885-4270 Daily 9am-5pm
313/ 885-4215 Daily 9am-5pm

Codes

1 = (Super)MacroWorks
2 = UltraMacros
3 = QuickSpell
4 = DeskTools
5 = FileMaster
6 = SideSpread
7 = SuperFonts
8 = Graph
9 = Pinpoint Desk Accessories
10 = Point to Point
11 = Graphic Edge
12 = Document Checker
13 = KeyPlayer

9,13 Mike Robinson
Royal Oak MI
313/ 585-5027 M-F 6pm-10pm;
S-S 10am-10pm
Michigan AppleGram 313/ 292-0389 #15

1 Pete Ross
Wayne MI
313/ 728-8720 answ mach

1,10 Richard Zajac
Mt. Clemens MI
313/ 465-2615 M-F 6pm-11pm;
S-S 8am-11pm
313/ 465-5040 answ mach
CompuServe 71540,1602

1,2,3, 4,5,6, 7,8 Keith Zook
Grosse Ile MI
313/ 675-1550 Daily 8am-4pm

Minnesota

1 Dick Kenfield
Hopkins MN
612/ 938-4382 M-F 4pm-9pm;
S-S all day
CompuServe 71540,373

Missouri

2,3,4, 5,6,7, 8,9,12, 13 Whit Crowley
Manchester MO
314/ 394-7955 M-F 6pm-9pm;
S-S 10am-6pm
CompuServe 70176,1167

Montana

9,13 Steve Bernbaum
Sheperd MT
406/373-6393 Daily 10am-11pm

9 Bob Shipek
Great Falls MT
406/ 791-2130 Daily 8am- 5pm
406/ 452-9104 Daily 9pm-Midnight
CompuServe 76067,3221

Nebraska

1,2,3, 4,5,8 — Larry B. McEwen
Hastings NE
402/ 463-1387 M-F 8am-4pm
402/ 463-2267 Daily 5pm-9pm
NAUG BBS #188
GEnie L.MCEWEN

North Carolina

9,11, 12,13 — Terry W. Robertson
Charlotte NC
704/ 377-0111 M-F 8am-6pm
704/ 536-4261 Daily 7:30pm-10pm

New Jersey

1 — Les Blatt
Maplewood NJ
CompuServe 73647,3157

1 — Pete Crosta
Nutley NJ
201/ 667-6369 M-F 3pm-10pm
201/ 667-2928 S-S 8am-10pm
201/ 266-4335 M-F 8:30am-3pm
NAUG BBS #230
CompuServe 70601,35
GEnie P.S.R.CROSTA
InCider #878

3,10 — Edwin C. Doe
Pt. Pleasant NJ
201/ 528-6349 8am-11pm
ans. serv. or modem
GEnie E.DOE

9 — Linda Nixon
Chatham NJ
201/ 635-0973 M-F 5pm-9pm;
S-S 11am-5pm

9 — Suzanne Thomas
Tinton Falls NJ
201/ 842-7699 Daily 9am-3pm, 7pm-9pm
CompuServe 76012,1145

New York

9,10 — Don Menges
Rochester NY
716/ 544-9398 Daily 8pm-11pm
CompuServe 75776,443
GEnie VSXER

2 — Harold S. Miller
Ozone Park NY
718/ 641-5208 Daily 10am-5pm;
M-F 7pm-9pm

1 — James Nicoll
Pittsford NY
716/ 546-6732 M-F 7:30am-2pm
716/ 381-9480 M-F 7pm-10pm;
S-S 10am-10pm

3,6,8 — David Strachen
Buffalo NY
716/ 634-8238 M-F 10am-5pm
716/ 832-8869 M-Th 6am-10pm

9,12 — Walter Taylor
W. Henrietta NY
716/ 263-7700 ext. 269 M-F 8am-5pm
716/ 359-2857 Other Times

Ohio

1,9 — Mark Ball
Paris OH
216/ 862-3277 M-F 6pm-10pm
216/ 627-7606 M-F 8am-3pm

1 — William Beasley
N. Olmsted OH
216/ 777-7700 ext. 282 M-F 8am-4pm
216/ 933-4408 answ mach
CompuServe 71106,574

9 — Mark Elliot
Hudson OH
216/ 686-2280 M-F 9am-5pm
216/ 653-5006 S-S 6pm-11pm
GEnie G.ELLIOT

2,3,4, 5,6,7, 9,12 — Carman Greco
St. Clairsville OH
614/ 695-5026 M-F 3pm-9pm;
S-S 9am-9pm

10 — Guy R. Moore
Oxford OH
513/ 746-6333 M-F 9am-4pm
513/ 529-7584 M-F 8am-4pm
513/ 523-3797 Daily 7pm-10:30pm

Oregon

1 — Calvin Behrens
West Linn OR
503/ 655-0058 M-F 9am-5pm
503/ 636-0762 M-F 5pm-10pm;
S-S 10am-10pm

1,2,3, 4,5,6, 7,8 — Jim Emig
Portland OR
503/ 280-5666 M-F 7am-4pm
503/ 771-1916 M-F 6pm-9pm;
S-S 10am-10pm

Pennsylvania

1 — Larry Beatty
Hopwood PA
412/ 439-4912 Daily 9am-10pm

1 — Martin Friedman
Philadelphia PA
215/ 473-6135 M-S 3pm-10pm
CompuServe 76676,1057

South Carolina

1,10 — Oliver Roosevelt
Fairforest SC
803/ 576-1270 M-F 8am-1pm
803/ 574-1104 M-F 5pm-10pm
NAUG BBS #162
CompuServe 76446,1046
GEnie O.ROOSEVELT
AppleLink PE: AFL Oli

Tennessee

1 — Major Michael Sutter
Clarksville TN
502/ 798-8203 Daily 6am-2pm
615/ 552-0973 Daily 5pm-9pm

Texas

9 — Ralph Logan, Jr.
Fort Worth TX
817/ 281-0661 TThF 2pm-5pm
GEnie R.LOGAN2

Members Helping Members Now on Disk

You can get an electronic copy of the Members Helping Members data base, which contains the complete listing of more than 150 consultants and the support they offer.

Send your request to NAUG with $4 per disk, plus $2 shipping and handling per order (foreign postage: $4).

9 — Bob Oberholtzer
Houston TX
713/ 664-2011 M-F 9am-6pm
713/ 664-1795 M-F 6pm-8:30pm
713/ 664-2011 24hr answ serv

Vermont

12 — Lars Baris
Essex Jct. VT
802/ 878-1392 Daily 7am-2pm

Virginia

9 — Warren Downes
Yorktown VA
804/ 898-8386 M-F Noon-4pm
804/ 898-1881 M-F 4pm-10pm;
Sat Noon-10pm

Washington

1,9 — Thomas Chambers
Fox Island WA
206/ 549-4114 M-F 5pm-9pm;
S-S 10am-10pm

Wisconsin

1 — Donald Chase
Omro WI
414/ 685-5681 Daily 6pm-9pm

1 — Neil Johnson
Eau Claire WI
715/ 834-8104 M-F 8am-3:45pm

1 — Jerry K. Miller
Milwaukee WI
414/ 321-3820 M-F 10am-2pm
414/ 425-0778 M-F 8pm-10pm

9 — Mike Starck
Milwaukee WI
414/ 545-5233 M-F 7am-5pm

9 — Paul Van Wyk
Appleton WI
414/ 731-0941 Daily 9am-4pm
414/ 739-6503 Daily 7pm-10pm

Foreign/APO

1,9 — Harve Thorn
Mexico City Mexico
905/ 516-0720 ext 135 M-F 8am-2pm

How to Update Your Electronic Index Disk

The Electronic Index Disk contains an AppleWorks data base file of over 500 articles published in the ***AppleWorks Forum***, cross-indexed by more than 280 Key Words.

The Index Disk is a valuable resource. There are three ways to update your index: Order a new disk from **NAUG** (the disk is updated and re-issued monthly); download the updated files from the **NAUG** BBS, or update your own copy of the data base file.

How to Update Your Disk

Each month, the ***AppleWorks Forum*** lists all the information that should be added to the index data base. Follow these steps to update your index:

1. Load the file Forum Index.II (or Forum Index.All if you have more than 128K of memory in your computer) onto the desktop. Issue an Apple-I command to indicate you want to insert new records.
2. Issue an Apple-V command to set default values for the records you will add. Enter the current volume number, issue number, and date.
3. Press the Escape Key.
4. Enter the information that appears in the "Index Update" section in each newsletter. Key Words should be separated by semicolons.
5. Press the Escape Key when you are done.
6. Put the cursor on the category named "Date". Indicate you want to arrange the records in chronological order.
7. Issue an Apple-S command to save the updated index on your data disk.

*[The **AppleWorks Forum** Electronic Index Disk is available from **NAUG's** Public Domain Library. Send $4 for the disk, plus $2 for shipping and handling (foreign postage: $4).]*

Electronic Index Disk, December 1988 Update
Enter the default values for these categories:
Volume #: 3 • Issue #:12 • Date: Dec 88
Enter the rest of the data in the following order:
TYPE • PAGE • TITLE • AUTHOR • KEY WORDS

Letters to NAUG • 2 • Ideas for Improved Output • Davis, Terrence • printer codes; control codes; printing

Letters to NAUG • 2 • How to Use Font Disks from the NAUG Public Domain Library • Cardosa, Arnold • SuperFonts; formatting; fonts; public domain

Letters to NAUG • 3 • Can't Make Copies of AppleWorks 2.1 • Honigstock, David • AppleWorks 2.1; updates; Copy II+; SEG.PR

Word Processor Tip • 5 • How to Eliminate Blank Pages • Bennet, Ann • printing; formatting; word processor

AppleWorks Add-Ons • 6 • How to Get More from QuickSpell • Sutherland, Robert • QuickSpell; add-ons; data base; spelling checkers

Quick Tip • 7 • How to Avoid Apple IIGS Lock-ups • Weiss, A. J. • Apple IIGS; ImageWriter; AppleWorks

Macro Primer • 8 • Understanding Compiled Macros • Munz, Mark • macros; UltraMacros

Macro Primer • 10 • How to Annotate a Macro • Munz, Mark • macros; UltraMacros

Printer Primer • 13 • Enhanced Output from Dot Matrix Printers • Sklar, John M. • printers; formatting; print quality

Spreadsheet Tip • 17 • How to Differentiate between Zeros and Blanks • Williams, Warren; Merritt, Cathleen • spreadsheet; @IF; @AVG; @COUNT; zeros

Spreadsheet Tip • 18 • Three Ways to Detect Erroneous Entries • Marriott, William • spreadsheet; errors; calculations

Advanced Techniques • 20 • An Inexpensive Way to Connect to AppleWorks Bulletin Boards • Shanker, Bruce • PC Pursuit; MERIT; modems; BBS; Electronic Forum

Members Helping Members • 24 • How to Get Help with Beagle Bros and Pinpoint Enhancements • Marriott, William • special programs; Beagle Bros; Pinpoint

Key Words: None added this month

AppleWorks Forum

NAUG
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(313) 454-1115
BBS (313) 482-8090

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NAUG shares members' addresses with other users groups and selected vendors. If you do not want to receive mail from these agencies, check here: ☐

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Guidelines for Contributors

The *AppleWorks Forum* consists entirely of materials contributed by NAUG members. The *AppleWorks Forum* publishes three types of member contributions:

1. Letters: A letter, written to the Editor, that asks or answers a question, shares an idea, or makes a statement.
2. Notes: A note is a brief article or Quick Tip about a single theme.
3. Articles: Articles are generally two to five double-spaced pages long. Members whose articles are published in the *AppleWorks Forum*, receive a one-year extension to their NAUG membership.

How to Submit Articles to the *AppleWorks Forum*

1. Send paper copies of letters.
2. If possible, send both paper and disk copies of notes and articles. All disk copies should AppleWorks files on 5.25-inch disks. If you do not submit a printed copy, please include a note describing what is on the disk.
3. All submissions to the *AppleWorks Forum* should include your name, address, and telephone number. We will cite you as the author of the letter, note, or article, but will not include your address or telephone number unless you specifically request that those be published. The Editor will make any necessary editorial changes to your submission. Mail your submission to: Cathleen Merritt, Editor; *AppleWorks Forum*; Box 87453; Canton, MI 48187

Seminar Schedule

NAUG sponsors AppleWorks seminars in various locations throughout the country. These seminars, entitled "AppleWorks: Beyond the Basics", are intended for AppleWorks users who want to solve AppleWorks problems and learn new techniques.

Seminar schedule:

December 2 — San Francisco, CA
December 5 — Orange, CA (Los Angeles/Long Beach)
December 7 — San Diego, CA
December 9 — Phoenix, AZ
January 18 — Philadelphia, PA
January 20 — Batavia, NY (Rochester/Buffalo)
January 23 — Boston, MA
January 24 — Hartford, CT
February 3 — Palo Alto, CA
February 6 — San Diego, CA
February 8 — Los Angeles, CA
February 10 — Denver, CO
February 23 — Detroit, MI

The presenter, Dr. Warren Williams, is a technical advisor to NAUG and a frequent contributor to the *AppleWorks Forum*. He has written more than 50 articles about AppleWorks and has conducted more than 75 AppleWorks seminars throughout the country. Write or call NAUG for more information.